Societal Influences on Health and Life-styles

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Strong sociocultural forces affect individual attitudes toward health and choice of life-style. Economic deprivation fosters negative health behaviors. Positive health habits are reinforced by discrete societal groups. The news media, particularly television, disseminate much useful health information, though the overall educational value is diminished by the content of commercial messages and programming. The automobile is a major societal influence, but neither individual drivers nor the car manufacturers give enough priority to highway safety, leaving that role to governmental regulation. American industry is becoming a positive influence in the encouragement of good health habits, and fashion is lately an important ally in personal health maintenance.

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There is now abundant evidence that control of many major health problems in the United States will require modifying individual behavior and the daily habits of living. Data supporting this assertion, gathered over many decades, have been emphasized in the recent medical literature and lay press and are discussed from a number of different perspectives in this issue. Clearly, progress in defining and quantifying health risks has been impressive and increasingly provides an authoritative basis for recommending personal health practices that promise a greater likelihood of longer life. However, the notions that nutritious food, regular exercise, adequate sleep and weight control help to prevent disease while smoking cigarettes, failing to wear seat belts, drinking too much liquor and driving fast may shorten life are not really new to either physicians or most of their patients. The problem is that so many of us ignore this information and persist in following harmful life-styles. It appears that the health of the nation suffers because too many persons simply refuse to accept the responsibility for taking proper care of themselves.[1]

Of course, it is not quite that simple. True, Americans take great pride in the exercise of individual determinism—that is, the ability of people to shape their own lives. Granted that within certain limits each person does have a great deal to say about how he or she lives, individual behavior is greatly influenced by social forces. The thoughts, feelings and, ultimately, actions of each person are molded to a major degree by the culture in which that person is reared and educated. For this reason, individual attitudes toward personal health matters, like other attitudes, reflect societal perceptions of what is important.

In the past, health attitudes and practices were often based on deeply held values about the nature of humans and life, usually expressed as religious beliefs and rituals. Thus, according to Herodotus, the ancient Egyptians, fearful of the morbid consequences of intestinal putrefaction, purged themselves for three successive days each month with emetics and enemas.[2] This emphasis on bowel hygiene was passed along to the Greeks, thence into western health practices, persisting even into modern times (such as the "high colonic"). In Epicurean Rome, where cleanliness was virtually a religion, the daily bath became an important element in personal health maintenance.[3] The great public baths of Caracalla and Diocletian accommodated as many as 3,000 citizens at a time. Vigorous exercise such as boxing, wrestling, running, jumping and playing ball usually preceded a relaxing interval in a steam room and the bath itself. The giant Roman thermae were, in fact, the first hydrotherapeutic institutes for maintaining health and reducing stress. This essential concept was resurrected during the past century as elaborate spas in Europe and is again fashionable today in the form of urban health clubs and posh "health farms."

While science now provides a more rational basis for choosing a healthy life-style than was available to the ancients, individual behavior is not predicated on the best available scientific evidence. Hence, one may fairly ask what societal forces now operate to influence a person's choice of health habits. In particular, why does our present society fail to inculcate in more persons a deeper sense of responsibility for their own well-being?

Human behavior is the composite reflection of a multiplicity of sociocultural factors acting on a biologic substrate,

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and our understanding of most of the variables is primitive. Some important societal influences on health behavior can be singled out, however, and deserve our attention because, in principle, these influences can be changed for the better.

Sociocultural Factors

In 1983, according to a special report, 29 million Americans, 12% of the population, were considered to be medically disadvantaged, either lacking suitably located medical care or, if available, the ability to pay for it.[4] They included 24% of the poor, 33% of the unemployed, 6.2% of the elderly and 15% of black and 20% of hispanic adults. Despite diminished access to health care, many of these persons follow a life-style and have personal habits at least as healthy as most of the population. However, this group also includes disproportionately large numbers of the impoverished and illiterate whose circumstances preclude hearing about or understanding the significance of risk factors and whose dietary imperative may be finding money for the next meal rather than subtleties of proper nutritional balance. In this respect, urban minorities continue to be among the most disadvantaged in the Western world.

Growing up free from want in mostly white, middle-class, American suburbia provides no guarantee that a person will acquire good personal health habits. But it certainly helps! From the cradle to old age, minority populations have a higher morbidity and mortality for most diseases strongly influenced by preventive health measures and life-style. A growing national economy, commitment to desegregation and affirmative action, socially progressive income-support programs and the provision of improved medical services have contributed substantially over the past two decades to narrow the gap between the health states of blacks and whites, but a considerable disparity still remains. For example, the National Center for Health Statistics reports that, while postneonatal deaths for both blacks and whites declined steadily between 1962 and 1978, and rates for blacks fell more sharply than those for whites, the mortality risk for black children aged four weeks to one year is still more than twice that of their white counterparts.[5] During this same time span, neonatal mortality rates also declined for both blacks and whites, but the relative risk for black infants, compared with white infants, actually increased from 1.6 in 1962 to 1.8 in 1978. The Center points out that neonatal mortality is mostly related to birth weight and distribution and levels of neonatal care. Postneonatal mortality is thought to be determined by a combination of environmental forces, including socioeconomic conditions, demographic factors—that is, maternal age and parity—and the availability and use of health care. Poor and minority populations fare worse than average on nearly every one of these pertinent variables.

Should black infants born into poverty (and almost half of black children are still poor) survive unscathed the first year, they grow and develop lifelong health habits under unfavorable circumstances. They are most likely reared in a single-parent household, often with no adult at home during working hours. They live in inner-city, high-crime areas where increased rates of violence, alcoholism and drug abuse are everyday parts of life. They likely attend substandard schools and are often taught by ill-prepared, overworked, harassed and frightened teachers. They learn that survival is the major goal and, for boys, that prowess on the athletic field is often a more effective way to break out of the ghetto than is intellectual accomplishment. Teenaged and young adult men will find that they may have only one chance in two of acquiring a job. If the youngster born to economic deprivation is a girl, she is more likely than her middle-class counterpart to become an unwed, teenaged mother, untrained and unable to support herself in modern society. Moreover, she may be forced to seek public assistance, perpetuating what has come to be called "the permanent underclass." And despite two decades of steady progress, poor minority children are still less likely than their middle-class counterparts to obtain proper immunizations, receive care for acute illnesses, be taught good health habits and have remediable health problems corrected. Indeed, according to Rogers, poor children in America see physicians 23% less often than those from middle- or high-income families.[6]

The health consequences of socioeconomic deprivation, already evident in childhood and youth, continue to be manifest throughout adult life in statistics showing that in urban minorities there is an excess mortality from cardiovascular diseases, lung cancer, alcoholism and traumatic injury. Moreover, their already compromised health status suffers disproportionately from cyclical declines in the economy. Although indications are that bad economic times are associated with an overall increase in the nation's health problems, the highest risk of recession-connected illness appears to affect those who are in the lowest socioeconomic classes ("Health and the Economy [Editorial]," *Los Angeles Times,* July 5, 1984, p 4). This is hardly surprising, of course, because such groups traditionally have the greatest increases in unemployment and financial hardship during economic declines and, it is postulated, such stresses are linked to subsequent physical and mental illness.

Most likely, teaching prudent rules of health behavior relating to diet, weight control, smoking, alcohol and exercise will have minimal impact on the most unfortunate and impoverished segment of our population. Here, rather, we must redouble our efforts to improve the inner-city schools, increase employment opportunities, reinforce civil rights, develop accessible health services and raise the economic level for poor and minorities.

Nutrition

Taste for foods, particularly salty or sweet products, is usually acquired early in life, and good nutritional habits are believed to be an important element in personal health maintenance. Consequently, it is disconcerting to see poor children on their way to school munching a breakfast of potato or corn chips or a candy bar, too often purchased at the neighborhood liquor store, which is conveniently open at that hour to serve the needs of "serious" drinkers. Both acquired tastes and economic means appear to influence food preferences among differing sociocultural groups in America and, by currently accepted standards, the poor and minorities consume a less healthy diet than middle- and upper-income white families. According to the Nationwide Food Consumption Survey,[7] residents of central cities eat more poultry, eggs, grain products, dark green vegetables, soft drinks, fruit drinks and ades but less milk, milk products, total vegetables and sugar than do dwellers in the suburbs or nonmetropolitan areas. When

the survey tabulated results for persons in the lowest income households (less than $6,000 per year), compared with the highest income households (more than $16,000 per year), the former were found to eat more poultry, eggs, legumes, nuts, seeds, total grain products, cereals, pastas, white potatoes and dark green vegetables but less total meat and total milk products and less sugar and sweets. In directly comparing the nutritional habits of blacks and whites, the survey reported that the two groups had similar total meat intake but that blacks eat more pork, poultry, frankfurters, sausages, luncheon meats and fish. Whites of all ages, but especially teenagers and young adults, consume more milk and milk products. Blacks eat more than twice as much cereal and pasta as do whites; black women, in particular, eat more baked products, especially bread, rolls and biscuits. Blacks eat more than three times as many dark green vegetables as do whites and more eggs and legumes. Whites eat more fruit and drink more coffee than do blacks, but the latter consume more soft drinks and ades.

Thus, by any of three comparisons, the diet of poor, minority and inner-city residents differs substantially from that of their white, middle-class, suburban counterparts. The degree to which such dietary variations contribute to observed differences in indices of disease has not yet been established.

Poor housing, crowding, inadequate nutrition, despair and the social stigma of the ghetto itself contribute importantly to preventable health problems in the United States. However, other sociocultural forces are evident that generate large health differentials unrelated to poverty, ghetto life or access to medical care. Religious groups that prohibit the use of alcohol or tobacco by their members provide the clearest examples. Fuchs has spotlighted this influence in a telling comparison of the levels of health in Utah and Nevada, contiguous Western states.[8] For example, infant mortality is about 40% higher and mortality for young and middle-aged adults is 40% to 50% higher in Nevada than in Utah. The two states are similar with respect to family income, schooling, degree of urbanization, climate and many other factors usually thought to contribute to such variations in mortality. Fuchs attributes the large differences in death rates to the contrasting life-styles of the residents of the two states—Utah, with its devout Mormons who do not smoke or drink and lead quiet, stable lives, and Nevada, where inhabitants drink and smoke freely and exhibit high indices of marital and geographic instability. The death rates from cirrhosis and respiratory tract cancer, many times higher in Nevada than in Utah, lend support to these conclusions. Analogous decreases in deaths from cancer in the Seventh Day Adventists, another religious group with strong family and community bonds, whose faithful shun alcohol and tobacco and follow diets largely devoid of meat, also support this view.[9,10]

The Automobile

For most of the present century, the automobile has been a powerful sociocultural force in American life. It influences how our cities grow and where our industries develop. It brings farmers closer to the metropolis, obviating the isolation of rural living. It opens new recreational opportunities for much of our population and enables persons from one state to visit and know many different regions of the country. The automobile, too, represents a distinctive form of self-expression. In choosing a car and how it is driven, much is said about how we perceive ourselves and how we wish to be perceived by others. After a house, the automobile is the single largest purchase for most families. The manufacture of automobiles is both a determinant and a mirror of the economic health of the country. Concomitantly, automobile accidents, which are mostly preventable, account for nearly half of the more than 100,000 trauma-related deaths in the United States each year.

As noted in a recent report of the Council of Scientific Affairs of the American Medical Association (AMA), victims of automobile accidents are not randomly distributed among populations any more than are victims of lung cancer or malaria.[11] Rather, those injured by motor vehicles may be described in terms of host characteristics and other key epidemiologic variables such as the agent, environment, time of day and season. For example, it is well known that fatality rates per passenger mile are highest for men ages 16 to 29 years, a fact reflected appropriately in prevailing auto insurance premiums. Automobile design and road conditions, particularly weather, are other important risk considerations. However, human errors appear to account for about two thirds of motor-vehicle crashes and include inaccurate perception, excessive speed, inattention and improper evasive actions. Importantly, it is estimated that alcohol may be a factor in nearly half of fatal auto accidents.

Our society is not defenseless against the carnage wrought by the automobile. Thus far, however, we have lacked the collective will to act decisively on the issues of passenger restraint systems, speed control and drunk-driving penalties. Lap belts, alone, are estimated to be 27% effective in preventing serious injury during automobile accidents, and the lap-and-shoulder harness, standard in all cars sold since the mid-1970s, is about 42% effective.[12] Only about 12% of people bother to wear seat belts at all, however, and of the 43,000 people killed in car crashes in 1983, fewer than 2% were wearing them. This is a shocking indictment of our ability to convince people to "buckle up" in the interest of preserving their own lives.

Lacking any other remedy and faced with such massive noncompliance with voluntary restraint systems, the Transportation Department has recently declared its intent to order automatic restraints unless mandatory seat-belt usage is widely adopted by the states. This action is long overdue. The sharp drop in fatal injuries from automobile accidents subsequent to setting a speed limit of 55 miles per hour during the oil crisis provides another example of how society can act to reduce needless deaths. If these gains are to be maintained, however, strong public support will be required both to pass the seat-belt legislation in the necessary number of states and to avoid progressive easing of enforcement of the speeding restrictions.

Clearly there is much need for more research into both human and mechanical causes of motor-vehicle accidents. At present, the government allocates about $1 billion annually for cancer research and $500 million for investigations of heart disease, but only about $12 million is allocated for the problems of traumatic injuries, which involve a loss to society of as many youthful years as do either of the other problems.[13] In this regard, it is most timely that the AMA Council on Scientific Affairs is now encouraging physicians to recognize

the importance of motor-vehicle injuries as a priority health matter. Last year, the Council recommended a 12-point-action program that includes enhanced patient education, support for tougher drunk-driving laws and encouragement of national and federal organizations, such as the National Institutes of Health, the National Highway Transportation Agency and appropriate private groups, to devote more of their resources to research concerning vehicle-related injuries and their prevention.

The Media

Health-related information, including discussion of risk factors, nutritional facts and fads and statistics on excess deaths from alcohol and tobacco abuse, is widely disseminated in the media. Moreover, the importance of individual responsibility for health maintenance has been emphasized repeatedly in recent years by discussion of life-style questions in news articles, on radio and in television special events programs and talk shows. By and large, such reports on health topics are accurate, objective, clearly written and timely—new findings often reach patients even before physicians receive the medical journal in which they are published. Perhaps in response to the high degree of coverage, much of the public exhibits a strong interest in health matters, though they are often puzzled by prolonged debates over the safety of sugar substitutes, whether sodium is good or bad for hypertension and the merits of medical versus surgical therapy for coronary artery disease. Clearly, the media have become a powerful vehicle for health education.

However, the cultural influence of the media in shaping conceptions about health and in affecting health-related behaviors is much more pervasive than might be evident from examination of its various explicit health messages. Advertisements for snack foods, alcohol and tobacco products, for example, obviously encourage less desirable health habits. For television, our most important news and entertainment vehicle, it is much too often a case of "what you do speaks so loudly I cannot hear what you say."

Americans now spend more time watching television than doing anything else except sleeping and, according to a ten-year analysis carried out by Gerbner and co-workers at the University of Pennsylvania, the overall impact of such viewing upon health appears to be negative.[14] During prime-time dramatic programs, for instance, references to food and drink occur an average of nine times per hour. Grabbing a snack is nearly as frequent as eating regular meals and, in children's programs, snacks are nearly twice as frequent. Food advertising accounts for more than a quarter of prime-time and weekend daytime commercials but nearly half of these are for sweets, snacks and nonnutritious ("junk") foods.

Despite much violence on television, death from highway accidents is rarely portrayed and seat belts are hardly ever used except in commercials and then less than 25% of the time. While smoking is now more limited on television, drinking alcohol by both male and female characters is exceedingly common: from 1½ to 6 episodes of drinking are seen per program hour during prime time and in the daytime serials. Notably, whereas some 36% of prime-time major characters drink regularly, only about 1% are portrayed as having a drinking problem or alcoholism.

In assessing the data from their ten-year study, Gerbner and colleagues conclude that heavy viewers of television are more likely to be complacent about eating, drinking and exercise than those who watch less frequently. Hard-core viewers are also influenced by a dominant dramatic portrayal of physicians as able to solve nearly any medical problem, often against great odds. Hence, television programs tend to encourage a "live-for-today" attitude wherein persons deny responsibility for good personal health habits, presuming the "doctor can fix it" if something goes wrong. These attitudes are, perhaps, particularly devastating among the poorly educated and lower income groups who tend to watch television the most, who started with the poorest opportunities for health and who most need adequate health information.

Focusing on the influence of commercials in stimulating alcohol usage, a number of national organizations, including the Consumer Federation of America, the National Congress of Parents and Teachers, the National Parent Teacher Association and the National Council on Alcoholism, have recently banded together to launch a petition drive seeking either an end to alcohol advertising on radio and television or equal time for health messages (S. Farnsworth, "Drive to End Radio, TV Alcohol Ads Begins," *Los Angeles Times,* June 26, 1984, p 4). The new campaign, called SMART (Stop Marketing Alcoholism on Radio and Television), maintains that beer and wine companies spent $550 million on television ads last year and $135 million on radio time. In contrast, only $7.1 million in free time was allotted for alcohol public service broadcast announcements. The sponsors of SMART argue that the continuous flow of ads glorifying beer and wine consumption, viewed year in and year out, convey to young people the message that these beverages are essential for a happy, friend-filled and successful adult life and, hence, contribute to the frequency of alcohol abuse. The campaign has a goal of collecting a million signatures to pressure the President and Congress to adopt either an advertising ban or to increase anti-alcohol abuse broadcasts. While predictably the initial response of the alcohol industry to the campaign has been negative, it is more praiseworthy that the Distilled Spirits Council, representing the "hard liquor" producers, has since 1936 abided by a voluntary ban on broadcast advertising.

It seems likely that programmatic and commercial media messages, at least those on television, now largely negate the behavioral benefits that accrue from the time allotted to informative reporting and the discussion of health issues, though there are firm indications that well-planned and executed media campaigns designed to alter personal habits favorably can be quite effective. For example, the Stanford Heart Disease Three Community Program found that an intensive mass media health education effort over a two-year period substantially reduced cardiovascular risk factors among persons in the target communities compared with a control town.[15] Such an educational campaign gained added impact from the addition of face-to-face counseling provided to higher risk groups. A similar study carried out in Finland showed that a carefully orchestrated media campaign, closely linked to an array of community health education programs, successfully enabled the target population to reduce cardiac risk factors over a four-year period.[16]

Not all such attempts to use the media to change health

habits have proved effective.[17] Moreover, much remains to be learned about the choice of media, the most efficacious message content and the best reinforcement techniques. Undoubtedly the press, radio, news magazines and television could constitute valuable allies in the effort to promote better personal health habits; recruiting them for this purpose should be a major national goal.

Industry

Historically, American industry has been slow to react to the steadily mounting expense for the health care services that it purchases. For many decades, business restricted its health-related activities to occupational health and safety, executive medical examinations and employee health insurance premiums. Soaring costs, however, and their increasing impact on profit margins are now changing corporate involvement in matters of medical care. This involvement likely will continue to grow until the delivery and financing of such care become more manageable.[18]

An immediate and positive manifestation of this newfound corporate interest in employee health is a burgeoning of business-sponsored programs of health risk appraisal and risk reduction. Such programs, designed to reduce the prevalence of avoidable chronic illness, received a boost from recommendations of a 1977 Labor-Management Health Care task force, composed of major industry and union executives under the leadership of John Dunlap, former Secretary of Labor.[19] The task force came out strongly for greater business emphasis on health education for employees and their families and for considering new policies and programs that would provide exercise facilities, smoking cessation clinics and healthier foods in employee cafeterias and vending machines. Added impetus for such programs has come from Blue Cross and other insurance companies, particularly the Health Insurance Association of America. As a consequence, many companies have added stress-reducing and weight control efforts to their previously successful hypertension screening and alcohol programs, with related activities such as counseling for major crises (the death of a child or spouse, or divorce). An increasing number of corporations now offer their fitness-exercise programs in company gymnasiums and on company jogging trails.

The incentives to invest in risk reduction are impressive. According to O'Donnell and Ainsworth,[20] employers now spend an average of $1,200 to $2,000 per employee per year on medical benefits. Moreover, during the past decade, sick leave, disability and ancillary benefits have steadily become more generous under the terms of union contracts, adding to the magnitude of corporate benefit packages. As a consequence, medical care has overtaken pensions to become the largest benefit costs incurred by companies.

The payoff to business from implementing programs to achieve healthier life-styles appears to be worth the trouble and expense. Experience to date suggests that such programs raise productivity and reduce absenteeism. For example, during the first year at 130 General Motors plants, such programs were credited with a 50% cut in grievances, a 50% drop in accidents, a 40% decrease in lost time and a 60% decline in sickness and accident payments. Kennecott Copper credits its exercise program with a 55% reduction in medical care costs. Benefits from smoking cessation have been estimated at up to $600 per worker per year, and New York Telephone says that its program to encourage employees to give up smoking saves more than $2 million per year in absenteeism and medical costs.

To date, the evaluation of work-site risk-reduction programs has been spotty, and the effectiveness of differing approaches must be assessed more thoroughly. However, the Washington Business Group on Health, an influential affiliate of the Business Round Table, and a number of large corporations are supporting the development of health evaluation tools as part of their growing examination of means to better control increased health care costs.

Fashion

By its nature, fashion is subject to change without notice, usually for reasons that defy rational explanation. Whatever its murky genesis and dynamics, however, fashion is a potent influence on individual behavior and, when it works to reinforce good health habits, merits praise and encouragement. Such is the happy case when, as in recent years, fashion setters have dictated that healthier life-styles are desirable and have prompted a large segment of the population to take up regular exercise and decrease caloric intake. While excessive jogging or aerobic dancing and imprudent "fad" diets have harmed a few, the growing acceptance of good health habits as "fashionable" is an enormous overall plus and greatly enhances organized professional efforts directed at risk reduction and personal health maintenance.

It would be nice to believe that physicians could set fashion trends in matters of health. Obviously physicians can and do play an important role in pointing the right direction. When it comes to capturing the public's interest and action, however, Jane Fonda may prove to be a more effective force than our most comprehensive health education programs. We need more such allies.

Conclusion

It is abundantly clear that physicians need to do a better job of informing the public about established health risks and to develop more effective methods to encourage personal health maintenance. To achieve these objectives, we must also recognize and more successfully neutralize the counterforces in society that influence health behavior negatively. The most readily accessible are the powerful tobacco and alcohol industries, which encourage use of their products directly through massive advertising campaigns and obtain indirect support from the media, at least on television, through frequent portrayal of product use in ordinary programming. More vigorous public education programs on the hazards of alcohol and tobacco, severe restrictions on their advertising and a pronounced increase in taxes on consumption of both products would do much for the health of our citizens with little sacrifice of individual rights.

The national media could be physicians' closest ally in improving the nation's health. The media should receive strong encouragement including financial incentives and, if necessary, additional regulatory guidance to examine more critically the health impact of their programming and advertising and to make necessary adjustments. Freedom of the press entails an overall obligation to act in the public interest.

Industry should be further encouraged to extend work-site

programs in health maintenance and risk reduction. "Bottom-line" improvements should be a sufficient incentive, and the results to date should be widely circulated.

Of greatest importance, physicians must better reach and assist the lowest socioeconomic segment of the population whose opportunity to learn about and assume greater personal responsibility for their own health is still compromised by the setting into which thay are born and raised. It is unfortunate that some, who feel that the maximum proportion of the nation's wealth that should be spent on "social" programs has been reached, cynically propound the need for greater individual responsibility in lieu of attacking unsolved societal ills. It would be tragic if current efforts to reduce health risks and encourage healthier life-styles were to serve as an excuse to renege on our earlier national commitment of equal access to medical care services and equal opportunity in life for all our citizens.

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